South Coast Air Quality Management District

Statement of Basis

Proposed Title V Permit
(Issued for Public Notice: 6/8/09)

Facility Name:	Tesoro Refining and Marketing Co. Sulfur Recovery Plant
Facility ID:	151798
SIC Code:	2911
Facility Address:	23208 S. Alameda St. Carson, CA 90810-1919
Application Number:	475196
Application Submittal Date:	11-02-07
AQMD Contact Person:	Thomas Lee, Air Quality Engineer
Phone Number:	(909) 396-3138
E-Mail Address:	tlee1@aqmd.gov

---

1. Introduction and Scope of Permit

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. This permit replaces the facility's other existing permits. Title V does not necessarily include any new requirements for reducing emissions. It does, however, include new permitting, noticing, recordkeeping, and reporting requirements.

The South Coast Air Quality Management District (AQMD) implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings. AQMD also has published a draft Technical Guidance Document for Title V (March 2005, Version 4.0) which is available on the AQMD website at http://www.aqmd.gov/titlev/TGD.html.

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant in the South Coast Air Basin. The Basin is in attainment with National Ambient

Air Quality Standards (NAAQS) for NO_2, SO_2, CO, and lead. The status for CO was redesignated from non-attainment to attainment in June 2007 (72 FR 26718). The status for PM-2.5 and PM-10 is currently nonattainment and serious nonattainment, respectively. The status for ozone is currently extreme non-attainment.

The AQMD proposes to issue an initial Title V permit for the Tesoro Sulfur Recovery Plant (SRP) located at 23208 S. Alameda St, Carson, CA 90810. The SRP recovers sulfur from sour water and Diethanolamine (DEA) solution containing hydrogen sulfide and ammonia generated at the Tesoro Los Angeles Refinery located at 2101 E. Pacific Coast Hwy, Wilmington, CA 90744. The SRP is subject to Title V requirements because its operations, which is subsumed under the refinery's, is a major source of criteria air pollutants as defined in Title V and is subject to certain NSPS (New Source Performance Standards) and NESHAP (National Emission Standards for Hazardous Air Pollutants) requirements. The refinery has applied for a separate Title V permit and the permit is being proposed concurrently for public and EPA review with the SRP permit.

2. Facility Description

Both, the Tesoro Los Angeles Refinery and SRP, are owned and operated by Tesoro Refining and Marketing Company. During the refining process at the refinery, sulfur is removed from crude oil and converted to hydrogen sulfide utilizing the hydrotreating process. The refinery gas produced from this process requires further treatment for the removal of hydrogen sulfide using Diethanolamine (DEA). Spent DEA solution (hydrogen sulfide rich solution) is transferred, via pipeline, from the refinery to the SRP for sulfur recovery. Water and steam condensate streams from the refining process can also contain hydrogen sulfide and ammonia. This sour water is also sent via pipeline to the SRP for hydrogen sulfide and ammonia removal. The SRP utilizes several processes to remove ammonia and convert hydrogen sulfide to saleable liquid sulfur. The lean (hydrogen sulfide free) DEA solution from the SRP is sent back to the refinery for reuse in the Hydrotreating units and stripped water is returned to the refinery for reuse and/or processing before disposal. Because of the operational dependency between the two facilities, the SRP is considered a support facility for the refinery even though the two facilities are neither contiguous nor adjacent to each other.

Operations at the SRP include the following major processes:

DEA Regeneration

These units are the first major processing units in the plant. DEA rich in hydrogen sulfide is regenerated into lean DEA using steam and stripper columns. Acid gases (gas containing hydrogen sulfide) generated from the stripper columns are routed to the Claus units for sulfur recovery while lean DEA is send back to the refinery for reuse.

Sour Water Strippers

Sour water generated at the refinery is pumped to the sour water strippers at the SRP. The strippers are used to remove ammonia and hydrogen sulfide from the sour water. The offgas from the strippers, containing ammonia and hydrogen sulfide, are vented to

the Claus units for sulfur recovery. The stripped water is cooled and returned to the refinery for use and/or processing before disposal.

Claus Units

There are four (4) Claus units at the SRP. Acid gases from the DEA and sour water strippers are vented to the Claus units for recovery of hydrogen sulfide and conversion to elemental sulfur. The process consists of a reaction furnace, waste heat boiler, and subsequent converters/condensers. Each stage consists of a gas reheater, a catalytic converter, and a condenser. From the condenser, sulfur is routed to the sulfur pit and pumped to the sulfur storage tanks.

Tail Gas Treating Unit

90 to 95 percent of the total sulfur is typically recovered in the Claus units and the remaining sulfur is recovered in the Tail Gas Treating Unit (TGTU). The TGTU consists of a reducing gas generator and a catalytic reactor to convert sulfur compounds to hydrogen sulfide. Absorber is then utilized to capture the hydrogen sulfide gas. Rich solvent from the absorber is sent to the stripper, where the hydrogen sulfide is stripped out and recycled to the Claus units. Absorber off gas is normally vented to the atmosphere but is diverted to the incinerator whenever the hydrogen sulfide content exceeds 10 parts per million by volume on a dry basis.

In addition to the above major processes, the SRP operates storage tanks, sulfur loading, and numerous combustion units such as boilers and a flare.

3. Construction and Permitting History

The sulfur recovery plant has been in continual operation since 1948. Numerous permits to construct and permits to operate have been issued to the facility since the formation of the Los Angeles County Air Pollution Control District in 1947. The current permit to operate and/or permit to construct for each permit unit located at the plant is contained in the Title V permit.

4. Regulatory Applicability Determinations

Applicable determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) for this facility have been completed. Applicable legal requirements with which this facility must comply have been identified in the Title V permit (for example, Sections D, E, H, and J of the Title V permit). Federal NSPS requirements of 40 CFR Part 60 apply to certain units at the facility and the permit terms and conditions have been added to Sections D and H of the Title V permit. Federal NESHAP requirements of 40 CFR Part 63 apply to certain units at the facility and the permit terms and conditions have been added to Sections D, H, and J of the Title V permit.

As discussed in Section 2 above, the SRP is considered a support facility for the Tesoro refinery, and thus, is subject to the NSPS and NESHAP regulations for petroleum refineries even though the facility is a sulfur recovery plant not physically located inside or adjacent to the refinery. (See reference Memorandum from Robert Kellam, EPA Office of Air Quality Planning and

Standards to Richard Long, Region 8 Air Program Director, dated August 27, 1996, available at: http://www.epa.gov/region07/programs/artd/air/nsr/nsrmemos/abnt.pdf).

Standards of Performance for New Stationary Sources (NSPS) (40 CFR 60)

Applicability Determinations

All of the equipment in the Title V permit have been reviewed to determine whether they are subject to any of the NSPSs. With the exception of the equipment specified in Tables 4.1 – 4.3 below, the SRP is generally subject to the following NSPSs:

- 40 CFR 60 Subpart A – Standards of Performance for New Stationary Sources;
- 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units;
- 40 CFR 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 14, 1983 and on or before November 7, 2006;
- 40 CFR 60 Subpart GGGa – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006;
- 40 CFR 60 Subpart J – Standards of Performance for Petroleum Refineries;
- 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007;
- 40 CFR 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquid for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978;
- 40 CFR 60 Subpart Ka – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984;
- 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquids Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984;
- 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater System.

The above regulations specify standards for applicable equipment within the facility based on construction date or subsequent modifications that resulted in an emission increase as defined by 40 CFR 60.14(a) or reconstruction with a capital cost of the new components exceeding 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility as defined in 40 CFR 60.15(a) and (b). The applicability of the above rules is based on information contained in the permit application files or through refinery responses to information requests. Each of the standards listed above, as applicable to the SRP, is incorporated into the Title V permit.

Alternative Monitoring Plans (AMPs)

EPA allows facilities to apply for an alternative monitoring plan (AMP) in lieu of meeting the monitoring requirements specified under an individual NSPS. NSPS Subpart A, section 60.13(i) states that "[a]fter receipt and consideration of written application, the administrator may approve alternative procedures to any monitoring procedures or requirements of [Part 60] …". The EPA, which retains delegation of the authority to approve these AMPs, approves AMPs that include adequate monitoring to verify compliance with the emission standard(s) of an NSPS. This facility is not operating under any AMPs.

Non-Applicability Determinations

Table 4.1- 4.3 contain tabulated summaries of selected negative determinations regarding NSPS applicability.

Table 4.1 Combustion Sources Not Subject to NSPS Requirements

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D76, D77	Boiler	40 CFR 60, Subpart Db	Combustion devices were constructed prior to the June 19, 1984 and have not been modified or reconstructed since then.
D76, D77	Boiler	40 CFR 60, Subpart J	Combustion devices were constructed prior to June 11, 1973, and have not been modified or reconstructed since then.
C96	Flare		
D27, D28, D29, D30, D34, D35, D37, D41, D43, D45, D101, D103	Furnaces and Heaters for Claus Unit No. 300, 600, 700 and 750	40 CFR 60, Subpart J	Devices in which gases are combusted to produce sulfur are not categorized as combustion devices pursuant to §60.101(g).
All Fuel Gas Combustion Devices		40 CFR 60, Subpart Ja	None of the fuel gas combustion devices at the refinery have been constructed, modified, or reconstructed since May 14, 2007.

Table 4.2 Storage Tank(s) and Waste Water System(s) Not Subject to NSPS Requirements

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D64, D66	Storage Tank	40 CFR 60 Subpart K/Ka/Kb	Tanks are permitted to store inorganic liquids only.
D68, D69, D70, D71, D73, D74,	Storage Tank	40 CFR 60 Subpart K/Ka/Kb	Tanks were constructed prior to June 11, 1973 and have not been modified or reconstructed since then.
D60	Storage Tank	40 CFR 60 Subpart K/Ka/Kb	Storage capacity below threshold for the subject NSPSs.
D67, D72, D75, D127	Storage Tank	40 CFR 60 Subpart K/Ka/Kb	Vapor pressure of permitted commodities is below the vapor pressure threshold of the

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
			subject NSPSs.
D74	Storage Tank	40 CFR 60 Subpart K/Ka	Storage capacity below threshold for the subject NSPSs
D61	Wastewater System	40 CFR 60 Subpart QQQ	Wastewater system was constructed prior to May 4, 1987, and has not been modified or reconstructed since then. Furthermore, catch basin is for storm water runoff collection.

Table 4.3 Compressors and Fugitive Components Not Subject to NSPS Requirements

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D136	Fug Comp (P7S1)	40 CFR 60 Subpart GGG	Component associated with steam production. Not part of a process unit.
D138	Fug Comp (P8S2)	40 CFR 60 Subpart GGG	Components associated with fuel gas treating and vapor recovery. Not part of a process unit.
D184	Fug Comp (P1S1)	40 CFR 60 Subpart GGG	Process unit was constructed prior to January 4, 1983, and has not been modified or reconstructed since then.
D185	Fug Comp (P1S2)		
D186	Fug Comp (P1S3)		
D187	Fug Comp (P2S1)		
D188	Fug Comp (P2S2)		
D189	Fug Comp (P2S3)		
D190	Fug Comp (P2S4)		
D191	Fug Comp (P2S5)		
D192	Fug Comp (P3S1)		
D193	Fug Comp (P3S2)		
D194	Fug Comp (P3S3)		
D195	Fug Comp (P3S4)		
D196	Fug Comp (P3S7)		
D197	Fug Comp (P6S1)		
D135	Fug Comp (P5S1)	40 CFR 60 Subpart GGG	Components associated with storage tanks. Not part of a process unit.
D137	Fug Comp (P8S3)	40 CFR 60 Subpart GGG	Components associated with flare. Not part of a process unit.
D95	Compressor (P8S2)	40 CFR 60 Subpart GGG	Compressor was installed/constructed prior to January 4, 1983, and has not been modified or reconstructed since then.
Fugitive components in all permit units.		40 CFR 60 Subpart GGGa	Process unit/compressor was constructed prior to November 7, 2006, and has not been modified or reconstructed since then.

None of the equipment at the SRP is subject to the NSPSs listed below:

- 40 CFR 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. This facility does not operate any steam generators that have a permitted heat capacity greater than 250 MMBtu/hr.
- 40 CFR 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. This facility does not meet the definition of an electric utility.
- 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This facility does not operate any steam generators that have a permitted heat capacity of less than 100 MMBtu/hr.
- 40 CFR 60 Subpart III – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes. This facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart NNN – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations. The facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart RRR – Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical. This facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart UU – Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. This facility does not conduct any asphalt processing or manufacturing.
- 40 CFR 60 Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006. This facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. This facility does not conduct any SOCMI operations.
- 40 CFR 60 Subpart XX – Standards of Performance for Bulk Gasoline Terminals. This facility does not have any bulk gasoline terminals.

National Emissions Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 61 and 63)

Applicability Determinations

All of the equipment in the Title V permit has been reviewed to determine whether they are subject to any of the NESHAPs. As a support facility for the Tesoro Los Angeles Refinery, the Sulfur Recovery Plant is generally subject to the following NESHAPs:

- 40 CFR 61 Subpart A – General Provisions
- 40 CFR 61 Subpart FF – National Emission Standard for Benzene Waste Operations
- 40 CFR 63 Subpart A – General Provisions
- 40 CFR 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries
- 40 CFR 63 Subpart UUU – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
- 40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

Each of these standards, as applicable to the facility, is incorporated into the Title V permit. Provided below is a brief description of the requirements for each of the above NESHAP regulations. Discussed within each section are the non-applicability determinations for each NESHAP as they pertain to this facility.

40 CFR 61 Subpart FF

40 CFR 61 Subpart FF – National Emission Standard for Benzene Waste Operations (Benzene Waste NESHAP) defines a major source as any chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery with 10 megagram per year (Mg/yr) (11 tons/yr) or more of benzene in the waste streams. As a support facility for the refinery, the aggregate operations of the refinery and SRP are used to determine the total benzene quantity in the waste streams. As such, the facility is a major source subject to the requirements of this regulation.

Summary of Requirements
This regulation requires a major source to control benzene in non-exempt waste streams that contain 10 parts per million by weight (ppmw) or more of benzene. It requires the removal or destruction of benzene in the waste using a treatment process that either a) removes benzene from the waste stream to a level less than 10 ppmw on a flow-weighted annual average basis, b) removes benzene from the waste stream by 99 percent or more on a mass basis, or c) destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene.

For waste management units, which are used to handle or treat waste streams that are treated as specified in §61.348 and/or recycled to a process, the operator must comply with the following standards:

- Tanks standards. *{61.343 and/or 61.351}*
- Surface impoundments standards. *{61.344}*
- Containers standards. *{61.345}*
- Individual drain system standards. *{61.346}*
- Oil-water separator standards. *{61.347}*

This regulation allows a facility to exempt some waste streams from control requirements. The quantity and type of streams that a facility may exempt depends on the compliance option selected. As discussed in the Statement of Basis for the refinery, the '6BQ' compliance option under §61.342(e) of 40 CFR 61 Subpart FF has been chosen by the facility to comply with this Benzene Waste NESHAP. Under the "6 BQ" compliance option, the aggregate facility must comply with the standards specified in §61.342(e) as follows:

- §61.342(e)(1): The operator shall manage and treat all waste streams, with a flow-weighted annual average water content of less than 10 percent, in accordance with the requirements specified in §61.342(c)(1). It is specified in §61.342(c)(1) that the waste stream must be recycled back to a process or the benzene contained in the waste stream must be removed or destroyed using a treatment process or wastewater treatment system that complies with the standards specified in Section 61.348.

- §61.342(e)(2): The operator shall manage and treat all waste streams (including remediation and process turnaround waste), with a flow-weighted annual average water content of 10 percent or greater, in such a manner that the total quantity of benzene in the treated and untreated aqueous waste streams is less than 6.0 Mg/yr. The benzene in each waste stream shall be quantified in accordance with §61.355(k)(6).

Non-Applicability Determination

The "6BQ" compliance option effectively allows the aggregate facility to leave exempt waste streams (with flow-weighted annual average water content of 10 percent or greater) uncontrolled provided that the total benzene contained in all controlled and uncontrolled exempt waste streams does not exceed 6 Megagram (Mg) per year. This facility's benzene waste portion is part of the overall exemption under the 6BQ compliance plan for the aggregate facility. There are no waste management units or systems at the SRP that are subject to the control requirements of this regulation. As such, the control standards pursuant to §61.348 of Subpart FF are not applicable for benzene waste streams at this facility. However, as a support facility operating under the refinery '6BQ' compliance option of Subpart FF, Facility Condition F52.1 has been tagged to the facility to indicate the facility is subject to the applicable requirements of 40 CFR 61 Subpart FF.

40 CFR 63 Subpart CC

The aggregate facility (SRP and refinery) is a major source under the definition of 40 CFR 63 Subpart CC (NESHAP from Petroleum Refineries). This regulation, which is commonly referred to as the Refinery MACT, seeks to reduce the emissions of eleven air toxics, including benzene, by requiring controls for emissions of air toxics from storage tanks, equipment leaks, process vents, and wastewater collection and treatment system. The facility is an existing source under this regulation since its construction commenced prior to July 14, 1994. The facility does not contain any equipment that is subject to the new source standards of this regulation.

Summary of Requirements
The Refinery MACT includes requirements for the following emission sources:

- Storage vessels. {§63.646}
- Miscellaneous process vents. {§63.643 - §63.645}
- Wastewater management and treatment equipment. {§63.647}
- Equipment leak (fugitive) components. {§63.648 & §63.649}
- Gasoline loading racks. {§63.650}
- Marine tank vessel loading operations. {§63.651}

Equipment that is subject to the Refinery MACT has "HAP" listed in the "Emissions and Requirements" column of the device along with a reference to Section J of the permit. For example, Group 1 storage vessels include "HAP: (10) [40CFR 63 Subpart CC, #3A, 6-23-2003]" in the "Emissions and Requirements" column. The pages in Section J that contain the requirements for Group 1 storage vessels have "40CFR 63 Subpart CC, #3A, 6-23-2003" in their headers. "40CFR 63 Subpart CC, #3A, 6-23-2003" appears in the table of applicable rules and regulations in Section K of the permit.

Non-Applicability Determination

The remainder of this section contains a summary of determinations for equipment that is not subject to this regulation.

Storage Vessels

Group 1 storage vessels are subject to the standards specified in §63.646. Group 1 storage vessels are defined as vessels that have a design capacity greater than 177 cubic meter (m^3) (46,763 gallons) and store an organic liquid that meets the following specifications:

- maximum true vapor pressure (TVP) greater than or equal to 10.4 kilopascals, and
- annual-average TVP greater than or equal to 8.3 kilopascals, and
- annual-average total organic HAP concentration greater than 4 percent (by weight).

Under this regulation, any storage vessel with a capacity greater than 40 m^3 (10,566 gallons) that stores an organic liquid that does not exceed the vapor pressure and HAP-content thresholds outlined above are Group 2 storage vessels, which are subject to some recordkeeping requirements. Group 2 storage vessels are identified in the permit by the following notation in the "Emissions and Requirements" column: HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]. Storage vessels that are not specified in the permit as Group 1 or Group 2 storage vessels are not subject to any requirements under this regulation. The following storage vessels are exempt from all requirements of this regulation:

- pressure storage vessels designed to operate in excess of 204.9 kPa without emissions to the atmosphere,
- tanks with a design capacity less than 40 m^3,
- tanks not storing an organic liquid,
- storage tanks used to store wastewater, and
- storage tanks used as a bottoms receiver tank.

Table 4.4 below contains non-applicability determinations for storage vessels that are not identified in the Title V permit as Group 1 or Group 2 storage vessels:

Table 4.4 Refinery MACT Non-Applicability Determinations for Storage Vessels

Emission Unit	Summary of Non-Applicability Determination
None	Storage vessel is a pressure storage vessel designed to operate in excess of 204.9 kPa without emissions to the atmosphere.
D64, D66	Storage vessel stores inorganic liquids only.
None	Design storage capacity is less than 40 m^3 (10,566 gallons).
D67, D72, D127	Storage vessel is used to store wastewater, as defined in this regulation.
None	Storage vessel is used as a bottoms receiver tank
None. Existing data are insufficient to identify such tanks.	Storage vessel makes no contact with HAPs.
D50, D60, D68, D69, D70, D71, D73, D74	Storage vessel is vented to a fuel gas system.

Equipment Leak (Fugitive) Components

Equipment leak is defined as emissions of organic HAPs from a pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system "in organic HAP service". Vents from wastewater collection and conveyance systems (including, but not limited to wastewater drains, sewer vents, and sump drains), tank mixers, and sample valves on storage tanks are not equipment leaks. "In organic HAP service" means that the equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAPs. There is only one category of equipment leak components in this regulation. Unlike storage vessels, wastewater systems, and miscellaneous process vents, equipment leak components are not categorized by Group 1 and Group 2.

This facility contains thousands of individual fugitive components such as valves, connectors, pumps, etc. For this reason, the fugitive components for each permit unit are grouped and identified in the Title V permit by a "fugitive emissions, miscellaneous" device. Grouping the fugitive component into a singular device is a manageable method for identifying regulatory requirements for some or all of the fugitive components in a permit unit. Permit units that contain some fugitive leak components that are subject to Refinery MACT requirements are identified by the notation "HAP: (10) [40CFR 63 Subpart CC, #5, 6-23-2003]" in the "Emissions and Requirements" column for the "fugitive emissions, miscellaneous" device for permit unit.

Table 4.5 below contains non-applicability determinations for equipment leak (fugitive) components at the facility.

Table 4.5 Refinery MACT Non-Applicability Determinations for Equipment Leak (Fugitive) Components

Emission Unit	Summary of Non-Applicability Determination
Fugitive components in all permit units.	Permit unit does not contain any fugitive leak components that are in "organic HAP service" as defined at §63.641 of this regulation.

Miscellaneous Process Vents

The Tesoro Los Angeles refinery and SRP, as an aggregate facility, has a number of gas streams that are periodically or continuously vented from process units to the atmosphere. These vents, which are referred to as process vents, include gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device prior to control or discharge to the atmosphere. Due to the large number of process vents, requirements for the venting of the majority of these process vents are specified in the Title V permit at the system level by S15.x conditions. Routine process vents that are directed to control equipment are specified in the "Connect To" column of the permit.

The Refinery MACT specifies requirements for some of the process vents at a refinery. The regulated vents are called "miscellaneous process vents". Miscellaneous process vents are defined at §63.641 as "gas streams containing greater than 20 ppmv organic HAP that are continuously or periodically discharged during normal operation of a petroleum refining process unit. According to the definition at §63.641, miscellaneous process vents include vent streams from: caustic wash accumulators, distillation tower condensers/accumulators, flash/knockout drums, reactor vessels, scrubber overheads, stripper overheads, vacuum (steam) ejectors, wash tower overheads, water wash accumulators, blowdown condensers/accumulators, and delayed coker vents. This definition also specifies fourteen (14) different vent stream types that are not miscellaneous process vents. These fourteen (14) vent stream types, which are shown in Table 4.6, make up the vast majority of atmospheric vents at the SRP.

A Group 1 miscellaneous process vent is a miscellaneous process vent for which the total organic HAP concentration is greater than or equal to 20 ppmv, and the total VOC emissions are greater than or equal to 33 kg/day at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere. A Group 2 miscellaneous process vent has a total organic HAP concentration of greater than or equal to 20 ppmv and total VOC emissions of less than 33 kg/day at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere.

Group 1 and 2 miscellaneous process vents are identified in the Title V permit with the following notations, respectively, in the "Emissions and Requirements" column of the equipment from which the vent emanates: HAP: (10) [40CFR 63 Subpart CC, #1, 6-23-2003] and HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]. The following table contains non-applicability determinations for process vents that are not identified in the Title V permit as Group 1 or Group

2 miscellaneous process vents. These non-applicability determinations are based on the definition of miscellaneous process vent in §63.641.

Table 4.6 Refinery MACT Non-Applicability Determinations for Miscellaneous Process Vent

Emission Unit	Summary of Non-Applicability Determination
D50, D60, D68, D69, D70, D71, D73, D74	Gaseous stream routed to a fuel gas system.
Emergency relief valves are too numerous to list individually in the permit. Emergency vents are permitted through following system conditions: S15.2 and S15.4	Relief valve discharge stream.
None	Leak from equipment regulated under §63.648.
Emergency relief valves and other vents associated with start-up, shutdown, malfunction, and maintenance are too numerous to list individually in the permit. These releases are permitted through the following system conditions: S15.2 and S15.4	Episodic or nonroutine releases such as those associated with startup, shutdown, malfunction, maintenance, depressuring, and catalyst transfer operations.
Onstream analyzers. This equipment is not listed in the permit.	In situ sampling systems (onstream analyzers).
There is no FCCU at this facility.	Catalytic cracking unit catalyst regeneration vent
There is no CRU at this facility.	Catalytic reforming regeneration vent.
Process 3, System 1, 2, 3, 4 vents are permitted through system conditions: S15.1 and S15.2	Sulfur plant vent
D51, D52, C54, C56, C96, C183	Vents from control devices such as scrubbers, boilers, incinerators, and electrostatic precipitators applied to catalytic cracking unit catalyst regeneration vents, catalytic reformer regeneration vents, and sulfur plant vents.
None	Vent from a stripping operation that was installed to comply with the wastewater provisions of 40CFR63 Subpart CC and/or 40CFR61 Subpart FF.

Emission Unit	Summary of Non-Applicability Determination
There is no Coking unit at this facility.	Coking unit vent associated with coke drum depressuring at or below a drum outlet pressure of 15 psig, deheading, draining, decoking (coke cutting, or pressure testing after decoking.
D50, D60, D68, D69, D70, D71, D73, D74	Vent from storage vessel.
D61	Emissions from wastewater collection and conveyance systems including, but not limited to, wastewater drains, sewer vents, and sump drains.
There is no Hydrogen production plant at this facility.	Hydrogen production plant vents through which CO2 is removed from process streams or through which steam condensate produced or treated within the hydrogen plant is degassed or deaerated.
None	Other process vent streams that have a total organic HAP content of less than 20 ppmv.

Wastewater Streams

In this regulation, wastewater is defined as "water or wastewater that, during production or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product and is discharged into any individual drain system". The Refinery MACT has requirements for Group 1 and 2 wastewater streams. Group 1 wastewater streams are wastewater streams that have a flow rate of 0.02 liters per minute or greater, a benzene concentration of 10 ppmv or greater, and are not exempt from control requirements under the provisions of 40 CFR 61, Subpart FF. Group 2 wastewater streams are all other waste or wastewater streams that meet the definition of wastewater in this regulation.

As specified at §63.647, Group 1 wastewater streams are subject to the requirements of §61.340 through §61.355 of 40 CFR 61, Subpart FF. Group 2 wastewater streams are subject to recordkeeping requirements only. Group 1 and 2 wastewater streams are identified in the Title V permit with the following notations, respectively, in the "Emissions and Requirements" column of any equipment that manages or treats a wastewater stream that is subject to this regulation: HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003] and HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]. Table 4.7 below contains non-applicability determinations for equipment that manages wastewater streams that are not identified in the Title V permit as Group 1 or Group 2 wastewater streams.

Table 4.7 Refinery MACT Non-Applicability Determinations for Equipment that Manages Wastewater Streams

Emission Unit	Summary of Non-Applicability Determination
D61	Manages water or wastewater that does not come into direct contact with or result from the production or use of any raw material, intermediate product, finished product, byproduct or waste product.
None	Manages water or wastewater that comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product but is not discharged into an individual drain system.

Gasoline Loading Operations

Gasoline is defined in §63.641 of this regulation as "any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater that is used as a fuel for internal combustion engines". Table 4.8 below contains non-applicability determinations for loading racks at the SRP.

Table 4.8 Refinery MACT Non-Applicability Determinations for Loading Racks

Emission Unit	Summary of Non-Applicability Determination
Loading rack listed in Process 4 of the Title V permit.	Loading rack does not load gasoline as defined at §63.641.

Marine Tank Vessel Loading Operations

Provisions for marine tank vessel loading operations located at petroleum refineries are located at §63.651, which references 40CFR 63 Subpart Y. The applicable definition of marine tank vessel loading operation from 40 CFR 63 Subpart Y is as follows: "any operation under which a commodity is bulk loaded onto a marine tank vessel from a terminal, which may include the loading of multiple marine tank vessels during one loading operation. Marine tank vessel loading operations do not include refueling of marine tank vessels". There are no marine tank vessel loading operations conducted at this facility as indicated in Table 4.9.

Table 4.9 Refinery MACT Non-Applicability Determinations for Marine Tank Vessel Loading Operations

Emission Unit	Summary of Non-Applicability Determination
Loading racks listed in Process 4 of the Title V permit.	Loading operation does not bulk load commodities onto marine vessels [§63.561 – Definition: Marine Tank Vessel Loading Operation]

40 CFR 63 Subpart UUU

40 CFR 63 Subpart CC addresses the emissions of air toxics from miscellaneous process vents in petroleum refineries. However, it does not address emissions from process vents on catalytic cracking units, catalytic reforming units, and sulfur recovery units. To address air toxics

emissions from these sources, EPA adopted 40 CFR 63 Subpart UUU- National Emission Standard for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units (CCUs), Catalytic Reforming Units (CRUs), and Sulfur Recovery Units (SRUs).

For equipment in the CCU, CRU, and SRU with process vents that are subject to Subpart UUU, the regulated pollutant is listed in the "Emissions and Requirements" column. As a non-contiguous support facility (that contains no CRU or CCU) for the Tesoro Los Angeles refinery, the applicability of this regulation for the SRP is denoted in the Title V permit by the tagging of System Condition S13.4 to the SRUs and its associated tail gas treating units (TGTUs). Furthermore, the final condenser of the SRUs and the absorber at the TGTUs are tagged with "HAP" in the "Emissions and Requirements" column of the permit. This listing references Section J of the permit, which contains the emission limits and requirements of Subpart UUU.

As an affected facility under 40 CFR 60 Subpart J, the SRP utilizes reduction control followed by incineration whenever the tail gas exceeds 10 ppmv H2S (dry basis) and reduction control not followed by incineration when the tail gas is below 10 ppmv H2S (dry basis). Depending on the tail gas H2S level, the facility may be subject to emission limits of 250 ppmv (dry, 0% excess O2) SO2 or 300 ppmv reduced sulfur compound calculated as ppmv SO2 (dry, 0% excess O2), respectively. Likewise, these emission limits are also applicable to 40 CFR 63 Subpart UUU as specified in Table 29. The affected equipment at the facility is tagged with both emission limits in the 'Emissions and Requirements' column of the Title V permit. Condition A99.1 specifies that the 250 ppmv SO2 limit (dry, 0% excess O2) is applicable only when the tail gas is routed to the incinerator. As specified in Table 30 of Subpart UUU, the SRP and associated control systems are not subjected to any operating limit under this regulation.

The requirements listed in Section J are listed under "40CFR 63 Subpart UUU, #4, 4-20-2006". In Section K of the permit, the references to Subpart UUU, #4 refer to the Subpart UUU, #4 template in Section J of the permit.

Table 4.10 below contains non-applicability determination for miscellaneous process vents at the SRP:

Table 4.10 Subpart UUU Non-Applicability Determination for Miscellaneous Process Vents

Emission Unit	Summary of Non-Applicability Determination
Miscellaneous process vents in all Processes/Systems except for Process 3, Systems 1, 2, 3, 4, 5, 6 and 7	Not an affected source as defined in §63.1562

40CFR 63 Subpart EEEE

This NESHAP applies to Organic Liquid (Non-Gasoline) Distribution operations that are located at or are part of a major source of HAPs and that are not subject to another part 63 standard such as 40 CFR 63 Subpart CC. Organic liquids as defined at §63.2406 are non-crude oil liquids or mixtures that contain at least 5 percent organic HAP and have an annual average true vapor

greater than 0.1 psia and all crude oils downstream of the first point of transfer. The standard covers storage tanks, transfer racks, equipment leak components and transport vehicles that handle organic liquids.

Non-applicability Determinations

Table 4.11 below contains non-applicability determinations for potentially applicable emission units at the SRP.

Table 4.11 Organic Liquid Distribution MACT Non-Applicability Determinations

Emission Unit	Summary of Non-Applicability Determination
Loading rack listed in Process 4 of the Title V permit.	Transfer operation does not load or unload organic liquid as defined at §63.2406.

40 CFR 63 Subpart GGGGG

This NESHAP is applicable to site remediation activities located at facilities that are a major source of HAP emissions and have at least one other source category that is regulated by a part 63 standard. This standard does not cover site remediation activities performed under CERCLA or RCRA. The affected sources would include remediation process vents, remediation material management units (tanks, containers, oil-water separators, transfer systems, etc.) and equipment leak components.

Non-applicability Determinations

There are no site remediation activities conducted at the SRP that are outside the authority of CERCLA or RCRA.

Other NESHAP Non-Applicability Determinations

The Tesoro SRP is not subject to the following NESHAPs:

- 40 CFR 61 Subpart BB - National Emission Standards for Benzene Emissions from Benzene Transfer Operations. This facility does not store or transfer benzene.
- 40 CFR 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. Pursuant to paragraph 63.640(d)(4), sulfur plant vents are not subject to this Subpart.
- 40 CFR 63 Subpart EEE - National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Incinerators. There are no hazardous waste incinerators, cement kilns, or aggregate kilns located at this facility.
- 40 CFR 63 Subpart F - National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry. This facility does not operate any SOCMI operations.
- 40 CFR 63 Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process

Vents, Storage Vessels, Transfer Operations, and Wastewater. This facility does not operate any SOCMI operations.

- 40 CFR 63 Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks. This facility does not operate any SOCMI operations.
- 40 CFR 61 Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene. This facility does not operate any equipment in "benzene service".
- 40 CFR 63 Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers. This facility does not use chromium based water treatment chemicals.
- 40 CFR 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators. This facility does not operate any oil-water or organic-water separators.
- 40 CFR 61 Subpart Y - National Emission Standards for Benzene Emissions from Benzene Storage Vessels. This facility does not store or transfer benzene.
- 40 CFR 63 Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines. This facility does not operate any stationary combustion turbines
- 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This subpart does not apply because this facility does not own or operate stationary reciprocating internal combustion engines that have to meet any emission limits or standards of this subpart.

Compliance Assurance Monitoring (CAM) (40 CFR 64)

This regulation requires facilities of major sources to submit CAM plans to accompany the application for renewal of their respective Title V permits or for initial Title V applications submitted after April 20, 1998. The initial Title V application for this facility was submitted by Texaco Refining and Marketing, Inc. (Texaco) on March 23, 1998 and was deemed complete on March 24, 1998 under A/N 338982. No CAM plans were required at the time.

Two ownership changes have occurred since the initial Title V application submittal by Texaco. On January 20, 2000 and May 11, 2007, Equilon Enterprises, LLC and Tesoro Refining & Marketing Co. submitted a change of ownership for this initial Title V application under A/N 364490 and A/N 475196, respectively. Change of ownership is considered an administrative process. The primary and basic operations that existed at the time the initial Texaco Title V application was deemed complete remained the same. Hence, no CAM plans are required until the facility renews its Title V permit.

5. Periodic Monitoring Requirements

Applicable monitoring and operational requirements for which the facility is required to comply are identified in the Title V permit (Section D, F, J, and Appendix B of the proposed Title V permit).

This facility is subject to RECLAIM monitoring, source test requirements, and other monitoring provisions that are required by federal, state or AQMD laws and regulations. Section F of the permit contains the monitoring and source test permit conditions imposed by Regulation XX. More specifically, it summarizes the monitoring and testing requirements for Major, Large and Process units at NOx and SOx RECLAIM facilities. Finally, CAM requirements of 40 CFR Part 64 do not currently apply to any of the permitted emission sources at this facility.

As specified in AQMD Rule 3004(a)(4), the proposed permit includes periodic monitoring conditions for equipment that is subject to SIP-approved, federally enforceable rules, which do not require sufficient monitoring to ensure compliance with emission limitations or other requirement of the rule. Permit conditions in Section D and H of the permit that fulfill Title V periodic monitoring requirements are tagged with the following: *Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997*. These periodic monitoring conditions are also tagged with the underlying rule(s) for which the condition is fulfilling the monitoring requirement. In some cases, existing monitoring conditions that were installed under NSR fulfill the periodic monitoring requirements for other rules or regulations. For these cases, the monitoring condition was tagged with Rule 3004(a)(4) and the underlying rule(s) for which the condition is fulfilling the monitoring requirement.

A draft Periodic Monitoring Guidance document was published by the AQMD in August 1977. A public consultation was held to solicit pubic input. The final Periodic Monitoring Guideline Document was published by the AQMD in November 1977. This guideline was used to establish the periodic monitoring requirements in the Title V permit. In addition, the AQMD used the CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Requirements in SIP (June 24, 1999) for applicable opacity limits, grain loading limits for material handling equipment, and for sulfur content of fuels. Furthermore, the AQMD used the CAPCO/ARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP for combustion sources (July 2001). These documents are included in Appendix II.

6. Title V Permit Format

The Title V permit comprises eleven sections and two appendices. Each section is devoted to a particular function as summarized below:

Section A **Facility Information**
This section contains operator name, facility location and mailing address. It also lists the name of the responsible official and contact person for the facility. Lastly, this section indicates whether Regulation XXX and RECLAIM apply to the facility.

Section B **RECLAIM Annual Emission Allocation**
This section applies to RECLAIM facilities only and lists NOx and SOx allocations for the facility.

Section C **Facility Plot Plan**

This section is reserved for the development of the facility plot plan in the future.

Section D **Facility Description and Equipment Specific Conditions**

This section describes equipment at the facility for which permits to operate have been issued. It also includes facility-wide operating conditions, emission limitations, the rules for which the emission limits and permit conditions are derived, and the periodic monitoring requirements as appropriate. The description of the process and equipment is structured in the following manner:

Process

A process is the largest grouping of equipment under the Title V permit, which includes all equipment involved in the making of final product from raw feed. A process can end at an intermediate product if the succeeding process is significantly different.

System

A system is the combination of equipment into a unit which is a logical subsystem of a process. A system can be used to identify individual process lines, or it can separate a long process line into separate functions. The main use of this grouping will be to separate a large process into manageable groups.

Equipment

This column describes equipment contained within a system or a process. It contains information necessary to identify equipment and ensure compliance with rules and regulations such as dimensions of a tank, heat input of a heater, horsepower of an engine. This section also lists the equipment application number (A/N). The application number is an identification number issued by the AQMD to the application submitted to the AQMD by the applicant for a Permit to Construct or Permit to Operate a piece of equipment. A facility is required to submit a permit application when it plans to install a new piece of equipment, alter an existing piece of equipment, or modify a permit condition. An application number in the Title V permit changes each time the AQMD approves a new application.

Device Identification (I.D.) Number

Each piece of equipment is assigned a unique I.D. number. When a piece of equipment is modified it retains its existing I.D. number. However, when it is removed from service, the I.D. number is retired and will not be used to identify another piece of equipment at this facility.

Connected to

This column is used to identify air pollution control equipment that is connected to a specific piece of equipment at the facility. This column is not intended to show process connections at the SRP.

RECLAIM Source Type/Monitoring Unit

This column is used to identify equipment classification pursuant to the RECLAIM program. The classification of major source, large source and process units are defined in Rules 2011 and 2012. The equipment classification is assigned only to NOx and/or SOx emission sources subject to RECLAIM. Each classification of equipment is subject to a specific monitoring requirement under RECLAIM.

Emissions and Requirements

This column lists emission limits applicable to each piece of equipment. It also lists the rules for which the limits were derived. If AQMD adopted a rule that has not yet been approved into the State Implementation Plan (SIP), emission limits established by both the SIP-approved and non SIP-approved versions of the rule are included in the permit.

Conditions

This column lists specific permit conditions applicable to the facility, process, system or equipment. A facility level condition applies to the whole facility and is designated by the letter F. The process conditions apply to the entire process and are designated by the letter P. The system conditions apply to the entire system and are designated by the letter S. The equipment (device) level conditions are designated by other letters depending on the category of conditions such as monitoring, recordkeeping, etc. Each permit condition references the law or rule for which the requirements in the condition were derived. If AQMD adopted a rule that has not yet been approved into the SIP, requirements established by both the SIP-approved and non SIP-approved versions of the rule are included in the permit. One category of the device level condition is the periodic monitoring condition.

Section E Administrative Conditions

This section contains general administrative permit conditions that apply to all facilities. The conditions listed in this section apply to all permitted equipment at the facility unless superseded by other conditions listed elsewhere in the facility permit.

Section F RECLAIM Monitoring & Source Testing Requirements

This section contains Monitoring and source testing permit conditions imposed by Regulation XX. It summarizes the monitoring and testing requirements for Major, Large and Process units at RECLAIM facilities.

Section G RECLAIM Recordkeeping & Reporting Requirements

This section contains recordkeeping and reporting requirements specified in Regulation XX. It summarizes the recordkeeping and reporting requirements for RECLAIM sources.

Section H **Permit to Construct and Temporary Permit to Operate**
The permit format in this section is the same as described for Section D above. However, equipment listed in this section has not been issued permits to operate, but were issued a permit to construct and/or a temporary permit to operate.

Section I **Compliance Plans & Schedules**
This section lists active compliance plans specified in the SIP-approved rules.

Section J **Air Toxics**
This section lists permit conditions pertaining to Federal NESHAP/MACT requirements.

Section K **Title V Administration**
This section lists the Title V administrative conditions. They are the same for all Title V facilities, except for the list of applicable rules table at the end of the section. The table at the end of the section lists all applicable rules referenced in Sections D and H (emission limit and conditions) and any rules that are referenced to the facility. This table also indicates which rules are federally enforceable and which are only enforceable by AQMD.

As part of the AQMD's permit software, the name for the NESHAP template(s) (40CFR 63 Subpart UUU, #4) from Section J of the Title V permit also appear in the rules table at the end of this section.

Appendix A **NOx and SOx Emitting Equipment Exempt from Written Permit Pursuant to Rule 219**
This section lists classes of NOx and SOx emitting Rule 219 exempt equipment present at the facility that are subject to RECLAIM.

Appendix B **Rule Emission Limits**
Some emission limits that are too complex to be listed in the Emissions and Requirements column of Sections D and H are listed in Appendix B of the Title V permit. Emission limits in this appendix are referenced by an emission type "(9)" in the "Emissions and Requirements" column of the permit.

7. Permit Features

Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility an explicit protection from requirements that do not apply to the facility. A permit shield is a provision in a permit that states that compliance with the conditions of the permit shall be deemed compliance with all identified regulatory requirements. Incorporation of a permit shield into the Title V permit involves submission of applications for change of conditions for each piece of equipment affected by the permit shield. Permit shields are addressed in AQMD Rule 3004 (c). The SRP has not applied for a permit shield for any of the equipment at the facility.

Alternate Operating Scenarios

An alternative operating scenario (AOS) is a set of provisions and conditions in a permit that allow the operator to switch back and forth between alternative modes of operation without submitting an application for a permit revision before each switch. However, each AOS must be evaluated for compliance with AQMD rules and regulations and applicable State and Federal requirements. AOS is addressed in Rule 3005 (j). The SRP has not applied for an AOS for any of the equipment at the facility.

Emissions Trading

The SRP is subject to emissions trading requirements under Regulation XX.

Prevention of Significant Deteriorations (PSD) Permits

PSD is a federal program for permitting new and modified sources that emit air pollutants for which the AQMD is classified as in attainment with the National Ambient Air Quality Standards (NAAQS). The SRP has not been issued a PSD permit by either the EPA or the AQMD.

EPA New Source Review (NSR) Permits

NSR is a federal program for permitting new and modified sources that emit air pollutants for which the AQMD is classified as in Non-attainment with NAAQS. Before SIP-approval of the AQMD NSR Rule in 1978, EPA issued NSR permits for new construction and/or equipment modifications in the AQMD. A check of the records indicates that there are no NSR permits issued by the EPA for this facility.

8. Summary of Emissions and Health Risk

Table 8.1 Criteria Pollutant Emissions (tons/year)
Annual Reported Emissions for Reporting Fiscal Year 2006-2007

Pollutant	Emissions (tons/year)
NOx	90
CO	130
VOC	30
PM	34
SOx	57

Table 8.2 Toxic Air Contaminants Emissions (TAC)
Annual Reported Emissions for Reporting Year 2006 – 2007

The Following TACs Were Reported	Emissions (lbs/yr)
1,3 Butadiene*	19.9
Acenaphthene	<0.001
Acenaphthylene	<0.001
Anthracene	0.001
Ammonia	4035.4
Arsenic*	0.114
B[Ghi] Perylene	<0.001
Benz[A]Anthracene	<0.001
Benzene*	141.3

The Following TACs Were Reported	Emissions (lbs/yr)
Benzo[A]Pyrene	<0.001
Benzo[B]Fluoranthene	0.001
Beryllium*	0.028
Cadmium*	1.036
Chromium (Vi)*	0.015
Chrysene	0.400
Dibenz[A,H]Anthracene	<0.001
Fluorene	0.007
Formaldehyde*	150.5
Indeno [1,2,3-Cd] Pyrene	<0.001
Lead (Inoranic)*	0.781
Naphthalene*	21.35
Nickel*	0.638
PAHs, Total, With Components Not Reported*	2.591
Phenantherene	0.009
Pyrene	<0.001
Total TACs	4,375
Total HAPs	338
Maximum Individual HAP (Formaldehyde)	150

*TAC that are also Hazardous Air Pollutants (HAPs).

Health Risk from Toxic Air Contaminants

The facility is subject to review by the Air Toxics Information and Assessment Act (AB2588). The Final Facility Health Risk was approved on September 24, 1999 with the following risk factors.

Cancer Risk	2.77 in one million
Acute Hazard Index	0.14
Chronic Hazard Index	0.00

9. Compliance History

The SRP is subject to the terms of a consent decree entered by the U.S. District Court in the Southern District of Texas on March 21, 2001 and a Hearing Board Order entered for Case No. 4982-76 regarding compliance with District Rule 1118. The issuance of a regular Variance by the AQMD Hearing Board does not affect federal or citizen enforceability of the subject requirements.

Consent Decree (Civil Action No. H-01-0978, 3-21-2001)

In 2000, the United States Environmental Protection Agency (USEPA) initiated a nationwide, broad-based compliance and enforcement initiative involving the petroleum industry. As a result of this initiative, the subject Consent Decree is the product of a settlement between Equilon Enterprises, LLC (the previous facility owner) and EPA over alleged violations of certain Clean Air Act and CERCLA/EPCRA provisions. This comprehensive settlement covers Equilon

facilities located in Bakersfield, Los Angeles and Martinez, California and Puget Sound, Washington. Equilon Enterprises, LLC transferred ownership of this facility to Tesoro Refining and Marketing Company on May 11, 2007. As the current facility owner, Tesoro continues to implement the requirements of the Consent Decree that are applicable to this facility.

As part of the Consent Decree, affected facilities would install additional air pollution control equipment and implement other enhancements to air pollution management practices to reduce air emissions. Specifically for the SRP, the following agreements were made:

- Eliminate all reasonably preventable SO2 emissions from flaring and implement root cause analysis, reporting and corrective action procedures to prevent upsets that result in significant releases of SO2 and other gases.
- Strive to extend the duration between SRP maintenance shutdowns (unscheduled or scheduled) to three years or longer.
- Comply with NSPS Subpart J at the SRP. The Consent Decree requires sulfur pit emissions to be re-routed and treated and monitored as required under NSPS Subpart J. Please note this was a global requirement that is already being met at the SRP.
- Comply with NSPS Subparts A.
- Require vent gases from the Claus SRU to meet SO2 standards and other requirements as specified in NSPS Subparts A and J.
- All provisions of NSPS Subparts A and J shall be applicable to the SRP, heaters and boilers upon lodging of the Consent Decree with exception to the startup/shutdown provisions of Subpart A for the TGTU.

Paragraphs 154-156 of the Consent Decree specify that Tesoro shall submit applications to incorporate the emission limits into NSR permits or other permits which are federally enforceable and, upon issuance of such permits, shall file any applications necessary to incorporate the requirements of those permits into the facility's Title V permit. None of the Consent Decree agreements for the SRP necessitated the submittal of applications by the facility.

Variance(s)

Hearing Board Case No. 4982-76*:* AQMD Rule 1118 was amended in November of 2005. The SRP operates one (1) General Service Flare (C96) that is subject to Rule 1118. Subsection (g)(3) of the amended rule specifies that owners or operators with flares subject to the rule shall install and operate a flare monitoring system (FMS) by July 1, 2007 to perform monitoring and recording of the parameters specified in the second section of Table 1 of the rule. This monitoring includes gas flow, gas higher heating value (HHV), and total sulfur concentration (TSC) of the gas. Subsections (g)(3) and (j)(1)(C) contain performance specifications for the monitors. Rule 1118(j)(1)(C) also requires that the accuracy of the flow meter be verified annually according to manufacturer specifications. Additionally, Rule 1118 contains reporting requirements that are based on these monitoring requirements.

At the time of the rule adoption, technical challenges and issues related to feasibility, reliability, maintainability, accuracy, and safety that had the potential to delay implementation of the specified monitoring systems were identified. Due to these known issues, the AQMD Governing Board adopted a resolution directing AQMD staff to work with the Western States Petroleum

Association and its refiner members to resolve outstanding issues. Due to the analyzer related delays, affected facilities requested and were granted a variance to the requirement to continuously monitoring TSC and HHV by July 1, 2007. The variances gave the facilities until September 1, 2008, to complete the design, acquisition, and installation of the required analyzers.

Pilot projects for the development of TSC and HHV analyzers were completed in March 2008. Based on a determination that the pilot analyzers demonstrated compliance with the technical requirements of Rule 1118, the AQMD approved the TSC and HHV analyzers on May 20, 2008. Since the analyzer approval was granted later than expected, the facilities petitioned for a modification and extension of the variance. On July 15, 2008, the Hearing Board granted an extension to the SRP variance (Case No. 4982-76) until September 30, 2009. Under the increments of progress for the variance, the SRP must install the TSC and HHV analyzers by July 30, 2009 and conduct all District-required testing of the analyzers by September 15, 2009.

As required by Rule 3004(a)(10)(C), device condition I1.1 has been added to C96 in section D and H of the permit requiring the operator to comply with all the conditions of the variance. A copy of the documents related to this regular variance is available on the internet under the AQMD's "Facility INformation Detail" database (FIND, at http://www.aqmd.gov/webappl/fim/prog/hbdisplay.aspx?fac_id=151798).

The Findings and Decisions pursuant to the modification and extension of this variance entered on July 22, 2008 by the District Hearing Board contain specific target dates for achieving activities, milestones or compliance. Condition I1.1 also establishes a schedule for submission of semi-annual progress reports to document progress toward achieving compliance. The requirement for a compliance schedule pursuant to 40 CFR 70.6 (c)(3) and District Rule 3004(a)(10)(C) is fulfilled by this permit condition.

The issuance of a regular Variance and/or Stipulated Order of Abatement (SOA) by the AQMD Hearing Board does not affect federal or citizen enforceability of the subject requirements.

Notices to Comply and Notices of Violation

The SRP has been in continual operation since 1948. Since the inception of Los Angeles County Air Pollution Control District the facility has been subject to both self-reporting requirements and AQMD inspections. Information regarding Notices to Comply (NCs) and Notices of Violations (NOVs) that have been issued to the facility over the past several years is available on the internet under the AQMD's "Facility INformation Detail" database (FIND, at http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac_id=151798). Please note that prior to May 11, 2007, the facility was under the ownership of Equilon Enterprises, LLC (ID# 117247) and the corresponding ID should be used for compliance history search prior to this date. As of May 22, 2009, the facility is in compliance with the specific rule requirements for which each of the listed NCs and NOVs were issued.

10. Compliance Certification

By virtue of the Title V permit application and issuance of this permit, the reporting frequency for compliance certification for this facility shall be annual.

11. Appendices

In order to minimize printing, all of the following appendices are available on the AQMD website as shown below. In addition, they will be made available on CDs upon request. Please contact the AQMD contact person identified on the public notice for this facility or call Thomas Lee at (909) 396-3138 for assistance in finding the information on the website or to obtain a copy of the CD.

I. Technical Guidance Document for Title V (January 1998, Version 2.0).

II. Periodic Monitoring Guidance Documents:

A. AQMD Periodic Monitoring Guidelines for Title V Facilities (November 1997) (http://www.aqmd.gov/titlev/pdf/PeriodicMonitoringGuidelines-97.pdf).

B. CAPCOA/CARB/EPA Region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP (June 1999) (http://www.arb.ca.gov/fcaa/tv/tvinfo/pmrec624.pdf).

C. CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources (July 2001) (http://www.arb.ca.gov/fcaa/tv/tvinfo/pmrecoms.pdf).

III. Summary Report of Notice of Violations. Further information regarding the facility's compliance status is available on the internet under the AQMD's "Facility INformation Detail" database (FIND, at http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac_id=151798). Please note that prior to May 11, 2007 the facility was under the ownership of Equilon Enterprises, LLC (ID# 117247). As such, this ID should be used to search for compliance history prior to May 11, 2007.